

Serial No.: 10/716,563
Docket No.: 102-1011
Amendment dated July 5, 2007
Reply to the Office Action of April 6, 2007

Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An image forming apparatus, comprising:

~~a photoconductive medium which is rotatable and is formed with a predetermined electrostatic latent image thereon;~~

~~a developing rollerunit transfer a toner to attach a toner to develop the electrostatic latent image on the photoconductive medium;~~

~~a toner supplying rollerunit transfer the toner to the direction of the developing unitto supply the toner stored in a toner receptacle to the developing roller, wherein the toner supplying roller is to be formed in a fur brush shape; and~~

~~a cleaning unit disposed at a position opposite to a predetermined nip with respect to a rotating axis of the toner supplying rollerunit to remove from the toner supplying rollerunit the toner which remains after the toner is transferred from the toner supplying roller to the developing roller;~~

~~wherein the nip defined between the developing unit and the toner supplying unit is approximately 0.2~0.5mm.~~

2. (Currently Amended) The image forming apparatus of claim 1, wherein the toner supplying rollerunit is formed in a fur brush shape having a cylinder and a fur made of nylon or acryl and attached to the cylinder, and the cleaning unit is formed as a cleaning roller to be supported by the toner receptacle to be in pressing contact with the toner supplying roller with a predetermined pressure to form a predetermined second nip with the toner supplying roller.

3. (Currently Amended) The image forming apparatus of claim 2, wherein the fur is approximately 5~15 deniers thick and approximately 1.0~1.5mm long.

4. (Currently Amended) The image forming apparatus of claim 2, wherein the

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| cleaning rollerunit is formed of a strong bar of a cylindrical shape.

5. (Cancelled)

6. (Currently Amended) The image forming apparatus of claim 1, further comprising:

| a toner controlling blade to form the toner supplied to the developing rollerunit into a regularly thin film.

7. (Currently Amended) A developing unit used with an image forming apparatus having a photoconductive medium, comprising:

a toner receptacle to store a toner;

| a developing rollerunit to transfer the toner supply the toner to the photoconductive medium;

a toner supplying rollerunit to transfer the toner to the direction of the developing units supply the toner contained in the toner receptacle to the developing roller, wherein the toner supplying rollerunit is formed in a fur brush shape,

wherein the toner supplying rollerunit comprises a cylinder and a fur attached to a surface of the cylinder in a radial direction of the cylinder ~~by a first distance from the surface of the cylinder~~; and

a cleaning rollerunit is disposed to be spaced-apart from the surface of the cylinder by a second distance to remove the toner from the toner supplying rollerunit by shaking the fur of the cylinder.

8. (Currently Amended) The developing unit of claim 8, wherein the cleaning rollerunit shakes off the toner remaining on a surface of the toner supplying rollerunit.

| 9. (Currently Amended) The developing unit of claim 8, wherein the cleaning rollerunit shakes a portion of the toner supplying rollerunit.

10. (Currently Amended) The developing unit of claim 7, wherein the cleaning

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~~rollerunit~~ is disposed in a direction parallel to a rotation axis of the toner supplying ~~rollerunit~~.

11. (Currently Amended) The developing unit of claim 7, wherein the toner supplying ~~rollerunit~~ comprises fur disposed around an outer circumference thereof and the cleaning ~~rollerunit~~ contacts a portion of the toner supplying ~~rollerunit~~ to shake the portion of the toner supplying ~~rollerunit~~ when the toner supplying ~~rollerunit~~ rotates with respect to the cleaning ~~rollerunit~~, so that the toner attached to the fur of the toner supplying ~~rollerunit~~ is removed.

12. (Currently Amended) The developing unit of claim 7, wherein the cleaning ~~rollerunit~~ pushes a portion of the toner supplying ~~rollerunit~~ with respect to the developing ~~rollerunit~~.

13. (Currently Amended) The developing unit of claim 7, wherein the cleaning ~~rollerunit~~ pushes the toner supplying ~~rollerunit~~ with respect to the toner receptacle.

14. (Currently Amended) The developing unit of claim 7, wherein the toner supplying ~~rollerunit~~ comprises a cylinder and a fur attached to the cylinder, and the cleaning ~~rollerunit~~ is disposed to contact the fur of the toner supplying ~~rollerunit~~ and shakes the fur of the toner supplying ~~rollerunit~~ when the toner supplying ~~rollerunit~~ rotates.

15. (Cancelled)

16. (Currently Amended) The developing unit of claim 7~~8~~, wherein the second distance is equal to or less than the first distance.

17. (Currently Amended) The developing unit of claim 16, wherein the cleaning ~~rollerunit~~ comprises a cylindrical member having an outer surface disposed to contact the fur of the toner supplying ~~rollerunit~~.

18. (Original) The developing unit of claim 17, wherein the outer surface of the cylindrical member is spaced-apart from the surface of the cylinder by a third distance which is

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equal to or less than the first distance.

19. (Currently Amended) The developing unit of claim 17, wherein the cleaning rollerunit is disposed to contact the fur of the toner supplying rollerunit and shakes the fur when the toner supplying rollerunit rotates, so that the toner attached to the fur is removed.

20. (Currently Amended) The developing unit of claim 17, wherein the cleaning rollerunit is stationary, and the fur of the toner supplying rollerunit contacts the cleaning rollerunit while rotating together with the cylinder of the toner supplying rollerunit.

21. (Currently Amended) A developing unit used with an image forming apparatus having a photoconductive medium, comprising:

a toner receptacle to store a toner;

a developing rollerunit to transfer a toner ~~supply the toner to the~~ photoconductive medium;

a toner supplying rollerunit to transfer a toner to the direction of the developing ~~units supply the toner contained in the toner receptacle to the developing roller, wherein the toner supplying roller is to be~~ formed in a fur brush shape; and

a cleaning rollerunit to remove the toner from the toner supplying rollerunit,

wherein the toner supplying rollerunit is rotatable, and the cleaning rollerunit is stationary.

22. (Currently Amended) The developing unit of claim 78, wherein the cleaning rollerunit is disposed to contact the toner remaining on a surface of the toner supplying rollerunit.

23. (Currently Amended) An image forming apparatus comprising:

a photoconductive medium; and

a developing unit comprising,

a toner receptacle to store a toner,

a developing rollerunit to transfer the toner ~~supply the toner to the~~

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| photoconductive medium,

 a toner supplying rollerunit having fur disposed around a circumference thereof to supply-transfer the toner to the direction of the developing unit~~contained in the toner receptacle to the developing roller~~, wherein the toner supplying rollerunit is formed in a fur brush shape, and

| a stationary cleaning unit to shake the fur of the toner supplying rollerunit to remove the toner from the toner supplying rollerunit.

24. (Cancelled)

25. (Cancelled)

26. (Currently Amended) The image forming apparatus of claim 1, further comprising:

| a developing unit frame to support the developing rollerunit to be rotatable, and having a toner receptacle to store the toner.

| 27. (Currently Amended) The image forming apparatus of claim 1, wherein the developing rollerunit is rotatably mounted in the image forming apparatus to contact the photoconductive medium.

| 28. (Currently Amended) The image forming apparatus of claim 1, wherein the toner supplying rollerunit rotates in contact with the developing rollerunit to form a predetermined nip with the developing rollerunit.

29. (New) The image forming apparatus of claim 1, wherein the nip defined between the developing unit and the toner supplying unit is approximately 0.2~0.5mm.

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30. (New) The image forming apparatus of claim 1, wherein the cleaning unit is formed as a cleaning roller to be supported by the toner receptacle to be in pressing contact with the toner supplying roller with a predetermined pressure to form a predetermined second nip with the toner supplying roller.